UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:	Helmut Jerg et al.
Application Number:	10/562,105
Filing Date:	December 22, 2005
Group Art Unit:	3743
Examiner:	Stephen Michael Gravini
Title:	METHOD FOR OPERATING A DEVICE WITH AT LEAST ONE PARTIAL PROGRAMME STEP OF DRYING

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APPEAL BRIEF

Pursuant to 37 CFR 1.192, Appellants hereby file an Appeal Brief in the above-identified application. This Appeal Brief is being filed within one month of the Notice of Panel Decision from Pre-Appeal Brief Review dated September 15, 2010 and is accompanied by the requisite fee set forth in 37 CFR 1.17(f).

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(1) REAL PARTY IN INTEREST

The real party in interest is BSH Bosch und Siemens Hausgeräte GmbH. The application and the invention disclosed in the application were assigned to BSH Bosch und Siemens Hausgeräte GmbH by virtue of an Assignment executed on December 21, 2005, which is recorded at Reel 17410, Frame 441 of the U.S. Patent & Trademark Assignment Records, effective December 22, 2005.

(2) RELATED APPEALS AND INTERFERENCES

There are no related appeals or interferences that will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) STATUS OF CLAIMS

Claims 1-8 have been canceled. Claims 9-19 are pending and stand rejected. The final rejections of claims 9-19 are being appealed.

(4) STATUS OF AMENDMENTS

All Amendments have been entered. The currently pending claims are as set forth in the Amendment filed with a Request for Continued Examination on January 14, 2010.

(5) SUMMARY OF CLAIMED SUBJECT MATTER

A description of the subject matter recited in the pending claims that are argued separately is set forth below, along with an indication of the portions of the specification and drawings that provide support for these features. In the following description, the reference numbers refer to the embodiment illustrated in Figure 1.

A. Claim 9

Claim 9 is directed to a method for operating a home appliance device. Claim 9 recites subjecting items retained in the home appliance 10 to a drying step after the items have undergone a treatment step as a result of which moisture remains on the items. The step of drying includes drawing at least one of air from a treatment chamber

12 and ambient air through a sorption column 20, and thereafter guiding the air that has passed through the sorption column 20 into a treatment chamber 12. Claim 9 recites that the sorption column 20 contains a reversibly dehydratable material that operates to withdraw moisture from air during the passage of the air through the sorption column 20. See the specification at page 3, lines 4-10 and between page 6, line 20 and page 7, line 12.

Claim 9 further recites effecting desorption of the reversibly dehydratable material in the sorption column 20 via drawing at least one of air from the treatment 12 chamber and ambient air through the sorption column 20 by means of an air accelerator means 16, subjecting air passing through the sorption column 20 to heating, and guiding the air that has been heated as it passed through the sorption column 20 into the treatment chamber 12. Claim 9 recites that the air which is guided into the treatment chamber 12 heats at least one of a treatment liquid to be applied to the items retained in the home appliance 10 and the items themselves. See the specification between page 4, line 10 and page 5, line 3, and also between page 7, line 24 and page 8, line 23.

B. Claim 10

Claim 10 depends from claim 9 and further recites that effecting desorption of the reversibly dehydratable material includes heating air during its passage through the sorption column 20 by heat of condensation and a selected one of additional heating via a heater 24/30 and no additional heating via a heater 24/30. See the specification between page 7, line 24 and page 8, line 23.

C. Claim 11

Claim 11 depends from claim 9 and further recites that the passage of air is undertaken during a programme step using treatment liquid to be heated. See the specification between page 7, line 24 and page 8, line 23.

D. Claim 12

Claim 12 depends from claim 9 and further recites that effecting desorption of the reversibly dehydratable material includes heating air during its passage through the sorption column 20 and thereafter passing the air through a heat storage device 40 for cooling in order to intermediately store the heat used for desorption in the heat storage device 20. Claim 12 further recites thereafter passing air for heating purposes through the heat storage device 40 and into the treatment chamber. See the specification at page 5, lines 8-14 and at page 8, lines 25-36.

E. Claim 13

Claim 13 depends from claim 9 and further recites that effecting desorption of the reversibly dehydratable material includes heating the air via a heater 24/30 in a pipe to the sorption column. See the specification at page 5, lines 16-18.

F. Claim 14

Claim 14 depends from claim 12 and further recites that at least one of the treatment liquid and the items are heated by the heated air, and that effecting desorption of the reversibly dehydratable material includes at least partly delivering the desorbed moisture from the sorption column 20 into at least one of the treatment chamber or the heat storage device. See the specification at page 5, lines 20-24 and at page 8, lines 4-23.

G. Claim 15

Claim 15 depends from claim 9 and further recites that effecting desorption of the reversibly dehydratable material includes heating the air via the heat of condensation in the sorption column 20. See the specification at page 5, lines 26-31 and at page 9, lines 7-15.

H. Claim 16

Claim 16 depends from claim 9, and further recites that the step of guiding the air that has been heated as it passed through the sorption column 20 into the treatment chamber 12 includes cooling the air that has been heated at a location intermediate the

sorption column and the treatment chamber. In the embodiment illustrated in Figure 1, this cooling could occur in the heat storage device 40. Alternatively, the heated air could be cooled at the inlet to the treatment chamber by contacting the heated air with residual water in the treatment chamber. See the specification at page 5, lines 8-14 and between page 8, line 25 and page 9, line 26.

I. Claim 17

Claim 17 depends from claim 16 and further recites that cooling the air that has been heated at a location intermediate the sorption column and the treatment chamber includes contacting the air that has been heated with a liquid having a temperature less than the air such that at least some evaporation of the liquid occurs, whereupon a cooling of the air takes place as a result of evaporation cooling. See the specification at page 9, lines 7-26.

J. Claim 18

Claim 18 depends from claim 9 and further recites a step of drawing air from at least one of a source of air consisting of air from the treatment chamber 12 and a source of air consisting of ambient air through the sorption column 20 by means of an air accelerator means 16 after the step of effecting desorption of the reversibly dehydratable material in the sorption column 20. Claim 18 recites that this step includes drawing such air through the sorption column 20 from the respective source of air substantially without imparting heat to the air from after the air exits the respective source of air up to its entry into the sorption column 20. Claim 18 goes on to recite that the air drawn through the sorption column 20 is heated within the sorption column via heat of condensation as liquid is condensed from the air and absorbed by sorption material in the sorption column 20. Finally, claim 18 recites guiding the air that has been heated as it passed through the sorption column 20 into the treatment chamber 12, whereupon the air guided into the treatment chamber 12 heats at least one of a treatment liquid to be applied to the items retained in the home appliance and the items themselves. See the specification at page 6, lines 14-36.

K. Claim 19

Claim 19 is an independent claim directed to a method for operating a dishwasher. Claim 19 recites subjecting crockery retained in the dishwasher to a drying step after the crockery has undergone a treatment step as a result of which moisture remains on the crockery. Claim 19 recites that the step of drying includes drawing at least one of air from a treatment chamber 12 and ambient air through a sorption column 20, and thereafter guiding the air that has passed through the sorption column 20 into the treatment chamber 12. Claim 19 recites that the sorption column 20 contains a reversibly dehydratable material that operates to withdraw moisture from air during the passage of the air through the sorption column 20. See the specification at page 3, lines 4-10 and between page 6, line 20 and page 7, line 12.

Claim 19 further recites effecting desorption of the reversibly dehydratable material in the sorption column 20 via drawing at least one of air from the treatment chamber 12 and ambient air through the sorption column 20 by means of an air accelerator means 16, subjecting the air passing through the sorption column 20 to heating, and guiding the air that has been heated as it passed through the sorption column 20 back into the treatment chamber 12. Claim 19 recites that the air guided into the treatment chamber 12 heats at least one of a treatment liquid to be applied to the crockery retained in the device and the crockery themselves. See the specification between page 4, line 10 and page 5, line 3, and also between page 7, line 24 and page 8, line 23.

(6) GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

A. Whether claims 9-12 and 16-18 are anticipated, under 35 USC §102(b), by US Patent No. 5,343,632 to Dinh (hereinafter "Dinh").

B. Whether claims 13-15 are obvious, under 35 USC §103(a), over Dinh, in view of US Patent No. 3,034,221 to Tuck et al. (hereinafter "Tuck").

C. Whether claim 19 is obvious, under 35 USC §103(a), over Dinh, in view of US Patent No. 2,633,928 to Chamberlain (hereinafter "Chamberlain").

(7) ARGUMENT

A. Claims 9-12 and 16-18

1. Claim 9

As noted above, claim 9 was rejected under 35 USC §102(b) over Dinh. For the reasons provided below, it is respectfully submitted that Dinh fails to disclose or suggest all the features of claim 9.

Independent claim 9 is directed to a method for operating a home appliance. Claim 9 recites subjecting items retained in the home appliance to a drying step after the items have undergone a treatment step, as a result of which moisture remains on the items. Claim 9 recites that the step of drying includes drawing at least one of air from a treatment chamber and ambient air through a sorption column, and thereafter guiding the air that has passed through the sorption column into a treatment chamber. Claim 9 recites that the sorption column contains a reversibly dehydratable material that operates to withdraw moisture from air during the passage of the air through the sorption column.

Claim 9 also recites a step of effecting desorption of the reversibly dehydratable material in the sorption column. Claim 9 recites drawing at least one of air from the treatment chamber and ambient air through the sorption column by means of an air accelerator means. Claim 9 also recites subjecting air passing through the sorption column to heating and guiding the air that has been heated as it passed through the sorption column into the treatment chamber, wherein the air which is guided into the treatment chamber heats at least one of the treatment liquid to be applied to items retained in the home appliance and the items themselves.

The Dinh reference discloses industrial dryer systems which operate in a closed looped fashion to remove moisture from items which are undergoing treatment. The Dinh dryer system utilizes heat pipes to move heat from one location to another. The heat pipes absorb heat from warm, moisture laden air exiting a treatment chamber. The removal of heat from the moisture laden air lowers the temperature of the air, which causes the moisture in the air to condense and flow out a drain as waste water. The

heat pipes also operate to move the heat absorbed from the air exiting the treatment chamber over to dehumidified air which is about to pass back into a treatment chamber.

The Dinh reference fails to disclose or suggest the use of a sorption column containing a reversible dehydratable material. Accordingly, Dinh necessarily fails to disclose or suggest methods that include drawing air through a sorption column such that a reversibly dehydratable material in the sorption column withdraws moisture from the air during its passage through the sorption column, as recited in claim 9. The Dinh reference also necessarily fails to disclose or suggest conducting any type of desorption step that would include effecting desorption of a reversible dehydratable material in a sorption column, as also recited in claim 9.

The June 10, 2010 Office Action asserts that the regenerative heat exchanger disclosed in Dinh is "structurally and functionally the same as the disclosed sorption column because both use a reversibly dehydratable material." Applicants could not possible disagree more strongly with this assertion.

To begin with, the heat exchanger structure in Dinh, which utilizes heat pipes, does not contain a reversibly dehydratable material. Thus, Dinh simply lacks a sorption column with a reversibly dehydratable material, which is required to practice the method recited in claim 9.

Also, although the heat exchanger structure disclosed in Dinh acts to remove moisture from a flow of air, the method used by the Dinh heat exchanger is significantly different from a method which utilizes a sorption column. In the Dinh structure, heat is removed from an airflow so that the temperature of the airflow decreases, at which point water vapor supported in the air condenses and flows out of the system. In contrast, when a flow of moist air passes through a sorption column containing a reversibly dehydratable material, the water in the airflow is directly absorbed by the reversibly dehydratable material. At this point, the water is still held in the system by the reversibly dehydratable material. In order to release that water, it is necessary to thereafter conduct a desorption step, as also recited in claim 9.

Moreover, Applicants note that when an airflow containing moisture passes through Dinh's heat exchanger structure to cause moisture to be removed from the airflow, the airflow is cooled. In contrast, when an airflow containing moisture passes

through a sorption column and moisture is absorbed by a reversibly dehydratable material in the sorption column, this causes the reversibly dehydratable material to heat up, which in turn heats up the airflow. Thus, Dinh's methods differ from the methods recited in claim 9 in this regard as well.

Because the Dinh reference fails to disclose or suggest virtually all of the method steps recited in claim 9, it is respectfully submitted that claim 9 is allowable over Dinh. Claims 10-12 and 16-18 depend from claim 9 and are allowable for the same reasons, and for the additional reasons explained below.

2. Claim 10

Claim 10 depends from claim 9 and further recites that effecting desorption of the reversibly dehydratable material includes heating air during its passage through the sorption column by heat of condensation and a selected one of additional heating via a heater and no additional heating via a heater.

As noted above, Dinh fails to disclose any methods that include effecting desorption of a reversibly dehydratable material. Moreover, in the Dinh methods, the air exiting the treatment chamber and passing over Dinh's heat pipes is cooled, not heated. Dinh fails to disclose or suggest any methods where the process air is passed through a sorption chamber and the air is heated. It is respectfully submitted that claim 10 is also allowable over Dinh for these additional reasons.

3. Claim 11

Claim 11 depends from claim 9 and further recites that the passage of air is undertaken during a programme step using treatment liquid to be heated. In other words, the process occurs when it is necessary to heat a treatment liquid in the treatment chamber.

In the Dinh system, there is never any treatment liquid in the treatment chamber. Instead, Dinh's heater system is used to dry materials present in the treatment chamber. Thus, Dinh necessarily fails to disclose or suggest conducting the process steps when it is necessary to heat a treatment liquid in the treatment chamber. It is

respectfully submitted that claim 11 is also allowable over Dinh for these additional reasons.

4. Claim 12

Claim 12 depends from claim 9 and further recites that effecting desorption of the reversibly dehydratable material includes heating air during its passage through the sorption column and thereafter passing the air through a heat storage device for cooling in order to intermediately store the heat used for desorption in the heat storage device. Claim 12 also recites thereafter passing air for heating purposes through the heat storage device and into the treatment chamber.

As noted above, Dinh fails to disclose or suggest any methods that effect desorption of a reversibly dehydratable material in a sorption column. For this reason, Dinh necessarily fails to disclose or suggest heating air during its passage through a desorption column, as required by claim 12. Dinh also necessarily fails to disclose or suggest storing the heat used for desorption in a heat storage device, as also required by claim 12. It is respectfully submitted that claim 12 is also allowable over Dinh for these additional reasons.

5. Claim 16

Claim 16 depends from claim 9 and further recites that the step of guiding the air that has been heated as it passed through the sorption column into the treatment chamber includes cooling the air that has been heated at a location intermediate the sorption column and the treatment chamber.

As noted above, Dinh fails to disclose or suggest any methods where air is passed through a sorption column, and where the air is heated as it passes through the sorption column. The Office Action appears to equate Dinh's disclosure of passing air exiting a treatment chamber over ends of heat pipes to cool the air to the recitation of passing air through a sorption column as recited in claim 16. And as noted above, in Dinh's corresponding step, the process air is cooled, not heated. In Dinh's method, the next step is to heat the air, not to cool the air. Thus, Dinh necessarily fails to disclose or suggest a method wherein the air is cooled at an intermediate location, as recited in

claim 16. It is respectfully submitted that claim 16 is also allowable over Dinh for these additional reasons.

6. Claim 17

Claim 17 depends from claim 16 and further recites that cooling the air that has been heated at a location intermediate the sorption column and the treatment chamber includes contacting the air that has been heated with a liquid having a temperature less than the air such that at least some evaporation of the liquid occurs, whereupon a cooling of the air takes place as a result of evaporation cooling.

As explained above, in the Dinh methods, the heated air is never contacted with a liquid in order to cool the air. Instead, in the Dinh methods, the air heated by Dinh's heaters is conducted straight back into the treatment chamber where it contacts the items to be treated. Thus, Dinh necessarily fails to disclose or suggest methods wherein the air that has been heated is contacted with a liquid having a temperature less than the air such that at least some evaporation of the liquid occurs, whereupon a cooling of the air takes place as a result of evaporation cooling. It is respectfully submitted that claim 17 is also allowable for these additional reasons.

7. Claim 18

Claim 18 depends from claim 9 and further recites a step of drawing air from at least one of a source of air consisting of air from the treatment chamber and a source of air consisting of ambient air through the sorption column by means of an air accelerator means after the step of effecting desorption of the reversibly dehydratable material in the sorption column. Claim 18 recites that this step includes drawing such air through the sorption column from the respective source of air substantially without imparting heat to the air from after the air exits the respective source of air up to its entry into the sorption column. Claim 18 goes on to recite that the air drawn through the sorption column is heated within the sorption column via heat of condensation as liquid is condensed from the air and absorbed by sorption material in the sorption column. Finally, claim 18 recites guiding the air that has been heated as it passed through the sorption column into the treatment chamber, whereupon the air guided into the

treatment chamber heats at least one of a treatment liquid to be applied to the items retained in the home appliance and the items themselves.

As explained above, Dinh fails to disclose or suggest any methods that include drawing air through a sorption column, as required by claim 18. Also, the step of Dinh's method that would correspond to drawing the air through a sorption column is where Dinh's system passes air across ends of heat pipes to cool the air. And claim 18 recites that during this step the air is heated, not cooled. It is respectfully submitted that claim 18 is also allowable over Dinh for these additional reasons.

B. Claims 13-15

As noted above, claims 13 -15 were rejected under 35 USC §103(a) over Dinh, in view of Tuck. For the reasons provided below, it is respectfully submitted that the combination of Tuck with Dinh is improper, and that even the improper combination of Dinh and Tuck fails to disclose or suggest all the features of claims 13-15.

Although the Office Action never specifically state this, it appears that the Examiner is taking the position that one of ordinary skill in the art, viewing Dinh and Tuck, would have been motivated to modify Dinh so that Dinh performs a method as recited in claim 13. Applicants respectfully disagree.

As explained above, the Dinh reference is directed to a dryer system used to dry items in a treatment chamber. The airflow through Dinh's system is designed to be continuously recycled. And, as explained above, Dinh uses heat pipes to cool the air leaving the treatment chamber so that moisture in the air will condense and flow out a drain.

The Tuck reference discloses a device which can be used to effect drying of items in a treatment chamber. In Tuck's system, a reversibly dehydratable material is used to absorb moisture from air leaving a treatment chamber. Thus, Tuck uses a considerably different method to remove moisture from the process air leaving the treatment chamber.

Because the reversibly dehydratable material can only hold a certain amount of moisture, it is necessary to periodically remove the moisture accumulated in the reversibly dehydratable material. Otherwise, the reversibly dehydratable material

becomes saturated and it can no longer effectively remove any moisture from the air leaving a treatment chamber.

Tuck teaches that during a desorption step, the reversibly dehydratable material is heated so that the reversibly dehydratable material is caused to emit the moisture it previously absorbed. Air is passed over the reversibly dehydratable material during the desorption step, and the air absorbs moisture emitted from the reversibly dehydratable material. Tuck teaches that this air is vented to the atmosphere. Because Tuck vents this air to the atmosphere, the heat used to conduct the desorption step is lost to the atmosphere. The heat used to conduct the desorption step is not transferred to any items in the treatment chamber.

Tuck is directed to a clothing dryer, which is only run periodically to dry clothing. And because Tuck's clothing dryer is only run periodically, it is acceptable to conduct a desorption step after each clothing drying cycle is finished, or after a certain number of drying cycles have been conducted.

As noted above, Dinh's industrial drying system is intended to be run continuously to dry large quantities of materials. And for this reason, it is impractical to use a reversibly dehydratable material to remove the moisture from the air leaving Dinh's processing chamber. If Dinh attempted to use a reversibly dehydratable material, it would be necessary to frequently stop the drying process so that moisture could be removed from the reversibly dehydratable material during a desorption step. To avoid this problem, Dinh specifically configured his system with heat pipes so that the system can be run continuously over large periods of time to dry large quantities of materials.

It is respectfully submitted that one of ordinary skill in the art would never have modified Dinh's system to incorporate a reversibly dehydratable material, because doing so would necessitate conducting desorption steps on a frequent basis. This would render the Dinh system far less productive than it is currently is, configured with heat pipes that cool the process air to remove moisture from the process air. For at least these reasons, it is respectfully submitted that the combination of Dinh and Tuck is improper. Withdrawal of the rejection of claims 13-15 on these grounds alone is respectfully requested.

Moreover, even the improper combination of Dinh and Tuck fails to disclose all the features of claims 13-15.

1. Claim 13

Claim 13 depends from claim 9. And as explained above, claim 9 recites that during a desorption step, air that has been heated as it passes through the sorption column is guided into the treatment chamber to heat at least one of the treatment liquid to be applied to items retained in the home appliance and the items themselves. When the air passes through the sorption column during the desorption step, the air picks up moisture that is being emitted from the reversibly dehydratable material. And that moisture is conducted into the treatment chamber. But because the desorption step is conducted during a time when liquid is already being used in the treatment chamber (such as during a washing or rinsing step), this is not a problem.

Also, with a method as recited in claim 9, the heat applied to the reversibly dehydratable material during the desorption step, to cause the reversibly dehydratable material to release absorbed water, is not lost to the atmosphere. This heat energy is conducted into the treatment chamber by the air, which reduces or completely eliminates the need to heat the items in the treatment chamber through other means.

If one were to combine the Dinh and Tuck references, one would have a system where, during the desorption step, the air passing through the sorption column is vented to atmosphere. The air would not be returned to the treatment chamber, as recited in claim 13. This also means that the heat energy used to effect desorption is lost to the atmosphere. Thus, Tuck not only fails to cure the deficiencies of Dinh discussed above, but Tuck also teaches away from the method recited in claim 13.

Moreover, one of ordinary skill in the art would not have been motivated to modify the combination of Dinh and Tuck to arrive at methods as recited in claim 13. As explained above, the whole point of Dinh, and of Tuck, is to remove water from a treatment chamber. One of skill in the art would never modify what is disclosed in Dinh or Tuck so that water is added to an airflow passing back into the treatment chamber. Doing so would be completely counter-productive to the systems and methods disclosed in Dinh and Tuck.

For all the above reasons, it is respectfully submitted that even the improper combination of Dinh and Tuck fails to disclose or suggest all the features of claim 13. It is respectfully submitted that claim 13 is also allowable for these additional reasons.

2. Claim 14

Claim 14 depends from claim 12 and further recites that at least one of the treatment liquid and the items are heated by the heated air, and that effecting desorption of the reversibly dehydratable material includes at least partly delivering the desorbed moisture from the sorption column into at least one of the treatment chamber or the heat storage device.

As explained above, even the improper combination of Dinh and Tuck would not result in a system where desorbed moisture from the sorption column is delivered into at least one of the treatment chamber or a separate heat storage device located between the sorption column and the treatment chamber. It is respectfully submitted that claim 14 is also allowable for these additional reasons.

3. Claim 15

Claim 15 depends from claim 9 and further recites that effecting desorption of the reversibly dehydratable material includes heating the air via the heat of condensation in the sorption column.

As explained above, in the Tuck reference, which is the only reference that teaches use of a reversibly dehydratable material, the reversibly dehydratable material is heated by a separate heating element. Tuck fails to disclose or suggest heating the air via the heat of condensation.

Moreover, whenever the air passing over Tuck's reversibly dehydratable material is heated, that air is simply vented to atmosphere. That air is not returned into the treatment chamber.

It is respectfully submitted that claim 15 is also allowable for these additional reasons.

C. Claim 19

As noted above, claim 19 was rejected under 35 USC §103(a) over Dinh, in view of Chamberlain. For the reasons provided below, it is respectfully submitted that the combination of Dinh and Chamberlain is improper, and that even the improper combination of these two references fails to disclose or suggest all the features of claim 19.

The Chamberlain reference discloses the use of a reversibly dehydratable material to remove air leaving a treatment chamber. However, Chamberlain, like Tuck, teaches that during a desorption step to remove moisture from the reversibly dehydratable material, the air passing over the reversibly dehydratable material should be vented to atmosphere.

It is respectfully submitted that one of ordinary skill in the art would not have modified the Dinh system based on the teachings of Chamberlain for all the same reasons discussed above regarding the improper combination of Dinh with Tuck. Withdrawal of the rejection of claim 19 on these grounds alone is respectfully requested.

Moreover, even the improper combination of Dinh with Chamberlain would not result in a system as recited in claim 19.

Claim 19 recites effecting desorption of the reversibly dehydratable material in the sorption column via drawing at least one of air from the treatment chamber and ambient air through the sorption column by means of an air accelerator means, subjecting air passing through the sorption column to heating, and guiding the air that has been heated as it passed through the sorption column into the treatment chamber. Claim 19 recites that the air guided into the treatment chamber heats at least one of a treatment liquid to be applied to the crockery retained in the device and the crockery themselves.

As explained above, in the Chamberlain system, when desorption is conducted, the air passed over the reversibly dehydratable material is vented to atmosphere. It is not conducted into the treatment chamber. Thus, even the improper combination of Dinh and Chamberlain fails to disclose of suggest a method as recited in claim 19.

Further, for reasons similar to those discussed above in connection with the combination of Dinh and Tuck, it is respectfully submitted that one of ordinary skill in the art would not have found it obvious to modify the combination of Dinh and Chamberlain

so that during a desorption step, the air passing over the reversibly dehydratable material would be conducted into the treatment chambers of those systems. Doing so would be counterproductive to those systems.

It is respectfully submitted that claim 19 is also allowable over even the improper combination of Dinh and Chamberlain for these additional reasons.

(8) CONCLUSION

In view of the foregoing discussion, Appellants respectfully request reversal of the Examiner's rejection.

Respectfully submitted,

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CLAIMS APPENDIX

1 - 8 (Canceled)

9. (Rejected) A method for operating a home appliance device, comprising:

subjecting items retained in the home appliance to a drying step after the items have undergone a treatment step as a result of which moisture remains on the items, the step of drying including drawing at least one of air from a treatment chamber and ambient air through a sorption column and thereafter guiding the air that has passed through the sorption column into a treatment chamber, the sorption column containing reversibly dehydratable material that operates to withdraw moisture from air during the passage of the air through the sorption column; and

effecting desorption of the reversibly dehydratable material in the sorption column via drawing at least one of air from the treatment chamber and ambient air through the sorption column by means of an air accelerator means, subjecting air passing through the sorption column to heating, and guiding the air that has been heated as it passed through the sorption column into the treatment chamber, wherein the air which is guided into the treatment chamber heats at least one of a treatment liquid to be applied to the items retained in the home appliance and the items themselves.

10. (Rejected) The method according to claim 9, wherein effecting desorption of the reversibly dehydratable material includes heating air during its passage through the sorption column by heat of condensation and a selected one of additional heating via a heater and no additional heating via a heater.

11. (Rejected) The method according to claim 9, wherein the passage of air is undertaken during a programme step using treatment liquid to be heated.

12. (Rejected) The method according to claim 9, wherein effecting desorption of the reversibly dehydratable material includes heating air during its passage through the sorption column and thereafter passing the air through a heat storage device for cooling in order to intermediately store the heat used for desorption in the heat storage device, and further including thereafter passing air for heating purposes through the heat storage device and into the treatment chamber.

13. (Rejected) The method according to claim 9, wherein effecting desorption of the reversibly dehydratable material includes heating the air via a heater in a pipe to the sorption column.

14. (Rejected) The method according to claim 12, wherein at least one of the treatment liquid and the items are heated by the heated air and effecting desorption of the reversibly dehydratable material includes at least partly delivering the desorbed moisture from the sorption column into at least one of the treatment chamber or the heat storage device.

15. (Rejected) The method according to claim 9, wherein effecting desorption of the reversibly dehydratable material includes heating the air via the heat of condensation in the sorption column.

16. (Rejected) The method according to claim 9, wherein the step of guiding the air that has been heated as it passed through the sorption column into the treatment chamber includes cooling the air that has been heated at a location intermediate the sorption column and the treatment chamber.

17. (Rejected) The method according to claim 16, wherein cooling the air that has been heated at a location intermediate the sorption column and the treatment chamber includes contacting the air that has been heated with a liquid having a temperature less than the air such that at least some evaporation of the liquid occurs, whereupon a cooling of the air takes place as a result of evaporation cooling.

18. (Rejected) The method according to claim 9 and further comprising a step of drawing air from at least one of a source of air consisting of air from the treatment chamber and a source of air consisting of ambient air through the sorption column by means of an air accelerator means after the step of effecting desorption of the reversibly dehydratable material in the sorption column, this step including drawing such air through the sorption column from the respective source of air substantially without imparting heat to the air from after the air exits the respective source of air up to its entry into the sorption column, the air drawn through the sorption column being heated within the sorption column via heat of condensation as liquid is condensed from the air and absorbed by sorption material in the sorption column, and guiding the air that has been heated as it passed through the sorption column into the treatment chamber, whereupon the air guided into the treatment chamber heats at least one of a treatment liquid to be applied to the items retained in the home appliance and the items themselves.

19. (Rejected) A method for operating a dishwasher, the method comprising:

subjecting crockery retained in the dishwasher to a drying step after the crockery has undergone a treatment step as a result of which moisture remains on the crockery, the step of drying including drawing at least one of air from a treatment chamber and ambient air through a sorption column and thereafter guiding the air that has passed through the sorption column into a treatment chamber, the sorption column containing reversibly dehydratable material that operates to withdraw moisture from air during the passage of the air through the sorption column; and

effecting desorption of the reversibly dehydratable material in the sorption column via drawing at least one of air from the treatment chamber and ambient air through the sorption column by means of an air accelerator means, subjecting air passing through the sorption column to heating, and guiding the air that has been heated as it passed through the sorption column into the treatment chamber, wherein the air guided into the treatment chamber heats at least one of a treatment liquid to be applied to the crockery retained in the device and the crockery themselves.

EVIDENCE APPENDIX

NONE

RELATED PROCEEDINGS APPENDIX

None